nutritive cost of different kinds of production; distinguishes between the net portion which is useful and the large fraction which is useless, in feeds; and is scientifically significant in being expressed in the unvarying terms of physical measurements.

The newer knowledge of nutrition, especially regarding proteins, mineral nutrients and vitamins, has been quite without direct effect to modify the previous understanding as to energy metabolism.

Like any general measure of nutritive value, net energy is essentially a conception of convenience, and not an absolute standard, since it must ignore the finer points of specific effects of foods.

It can not be fairly judged from the point of view which regards each feed and each ration as presenting a separate chemical problem. In this light no feeds are comparable by any common measure.

Following the presentation of this paper a committee of the society was appointed to formulate a resolution expressing its attitude toward the net energy conception of Armsby, and the work of the Pennsylvania Institute of Animal Nutrition. The following resolution was reported and unanimously adopted:

Resolved, That the American Society of Animal Production, in annual convention assembled, strongly endorses the program of work of the Pennsylvania Institute of Animal Nutrition.

Scientists throughout the world realize the outstanding importance of the classical researches conducted at this institute by the late Dr. H. P. Armsby and his associates with the respiration calorimeter.

These investigations have revealed many important fundamental facts regarding the nutrition of farm animals and have furnished the most accurate quantitative measure of the productive value of different feeding stuffs.

The society endorses the Armsby conception of net energy values derived from his researches with the respiration calorimeter. It realizes that on account of the time and expense involved in net energy determinations it was possible for Dr. Armsby and his colleagues to make direct determinations on only a limited number of feeds. Furthermore, the larger proportion of the investigations have been conducted with steers. The society therefore appreciates deeply the importance to the animal industry of this country and of the world of continuing these researches and extending them to include the other classes of farm animals.

These investigations are of a type which involve great expense, and furthermore, are of world-wide importance. It is fitting, therefore, that the greatest possible use be made of the equipment of this institute which is the only such apparatus in the world.

Realizing the need for the continuation and expansion of this work the society strongly recommends that the United States Department of Agriculture extend to the Pennsylvania Institute of Animal Nutrition the fullest cooperation and support.

(Signed) FRANCIS G. BENEDICT,
JOHN M. EVVARD,
A. J. GRAMLICH,
A. G. HOGAN,
F. B. MORRISON, *Chairman*

Subsequently, the writer reviewed this action by the Society of Animal Production before the Subcommittee on Animal Nutrition of the National Research Council, of which he is the chairman; and this committee expressed its approval of the action of the society.

E. B. FORBES
THE INSTITUTE OF ANIMAL NUTRITION OF
THE PENNSYLVANIA STATE COLLEGE

SCIENTIFIC EVENTS

THE LONDON AQUARIUM

THE new aquarium in the Zoological Gardens was opened to fellows and their friends on April 5 and 6, and to other visitors to the gardens from April 7.

According to an article in the London *Times* the installation is the greatest enterprise undertaken by the Zoological Society in the course of its history, now nearly a century long. The building is placed under the Mappin Terraces, the hills of which conceal the high level reservoirs of the circulation system and give the necessary protection from inequalities of temperature. The area occupied is a crescent, following the curve of the hills and is almost exactly 450 feet in length. There are 25 tanks, ranging in length from 30 feet to 6 feet, for fresh-water creatures; 17 tanks, the largest two of which are over 30 feet, for marine animals; and there are 40 smaller tanks for tropical fish. The total cost of erection, equipment and stocking has been nearly £54,000, met partly by realization of the society's freehold property and partly by a loan guaranteed by the president, the Duke of Bedford, and the Fishmongers' Company. To provide for the cost of maintenance and a sinking fund for the debt nearly £10,000 a year will be required, and it is therefore necessary to make a charge for visits to the aquarium in addition to the payment for entrance to the gardens.

The anterior is divided into three halls, each with the same scheme of decoration, designed to show the aquatic creatures to the best advantage. The floors are paved with dark rubber, silent and pleasant to the foot, and the walls, columns and ceiling are enamelled in shining black. There are pendant electric lights in case of need, but the general illumination comes only through the windows of the tanks. Each of these is set back in a deeply shelving frame of dark green marble composition. The general

effect is that of a picture gallery, its two curved walls hung with a series of pictures all "on the line." But the pictures are living. Each has a background of natural rock, grey or red granite, weathered limestone, sandstone, or slate, some with natural fossils, others with corals or giant shells, and each composing a distinct scene of subaqueous beaches and ledges, shelving rocks or tumbled boulders.

The aquarium requires a special staff, Mr. E. G. Boulenger, formerly curator of reptiles, has been appointed director, and has superintended every detail of construction and equipment. Mr. Vinall, formerly head keeper at the reptile house, is his chief assistant, and was sent to the aquarium at Amsterdam last summer for special training. There are two assistant keepers, an electrician and three stokers.

Since 1912 the secretary of the society and Mr. Boulenger have been collecting information from all the existing aquaria, and Messrs. Belcher and Joass, the architects of the Mappin Terraces, prepared the detailed architectural plans to their general designs. Miss Joan B. Proctor, now the society's curator of reptiles, made the designs and prepared scale models of all the rockwork, beside arranging the actual rockwork in some of the smaller tanks. Dr. Allen, director of the Plymouth Laboratory of the British Marine Biological Association, Dr. Townsend, director of the New York Aquarium, and many other experts gave much valuable advice.

THE MOTOR VEHICLE TRAFFIC CONFERENCE AT YALE UNIVERSITY

A CONFERENCE on Motor Vehicle Traffic, with special reference to regulation, control and safe operation, was held in New Haven on April 9, 10 and 11, under the joint auspices of the State of Connecticut and Yale University. The purpose was to consider the causes of accidents due to motor vehicle traffic and to discuss methods of preventing such accidents. Funds to defray the expenses of the conference and to provide for printed proceedings have been given by Mrs. Helen Hartley Jenkins, of New York City, through the Hartley Corporation, of which Mrs. Jenkins is president.

The causes of more than 15,000 motor vehicle accidents which happened in Connecticut during 1923 have been analyzed by the department of civil engineering of Yale University in cooperation with the department of motor vehicles of Connecticut. These accident statistics were presented at the opening session on Wednesday, April 9. This was followed by a discussion of "Laws governing traffic" and by a paper on "The mind of the operator." Under the general topic of "Accident prevention," papers were presented on Thursday, April 10, on "The education of school children and the general public," "Highway improvement," "Traffic regulation and control," "Police methods," "Laws and court systems," and "Motor vehicle department procedure." The third day, Friday, April 11, was devoted to a discussion of specific Connecticut problems such as "Highways," "Street railways," "Public service motor vehicles," "The traffic policing of highways," and "The traffic policing of city streets." The keynote of the sessions of this day especially, as for the whole conference, was accident prevention.

Among those who expected to present papers during the conference are W. M. Maltbie, judge of the Superior Court of Connecticut; T. W. Salmon, associate professor of psychiatry of Columbia University; A. M. Meredith, commissioner of education of Connecticut; E. G. Payne, professor of education of New York University; F. S. Greene, superintendent of the department of public works of New York; W. P. Eno, Washington, D. C.; A. S. Foote, commissioner of public safety of Massachusetts; D. A. Adams, secretary of the New Haven Automobile Club; W. L. Dill, commissioner of motor vehicles of New Jersey; R. B. Stoeckel, commissioner of motor vehicles of Connecticut; J. A. Macdonald, highway commissioner of Connecticut; L. D. Storrs, president of the Connecticut Company; R. T. Higgins, chairman of the Public Utilities Commission of Connecticut; R. T. Hurley, head of the State Police of Connecticut; G. H. Farrell, chief of police of Hartford, Connecticut, and P. T. Smith, chief of police of New Haven.

The State of Connecticut is said to have the most complete organization in this country for the systematic reporting, analyzing and recording of all motor vehicle accidents within a state. This conference was part of a determined effort to reduce the number of such accidents. The critical study of the causes of such a large number of accidents yields data upon which to base future legislation and the education of the general public in the prevention of accidents. While the conference primarily concerned Connecticut, representatives of other states were invited to take part in the discussions, and it is hoped that it will result eventually in an appreciable reduction in the number of motor vehicle accidents not only in Connecticut, but throughout the country.

Robbins B. Stoeckel, commissioner of motor vehicles of Connecticut, representing Connecticut, and Professor John C. Tracy, chairman of the department of civil engineering of the Sheffield Scientific School of Yale University, representing the university, were in charge of arrangements for the conference.

THE AMERICAN GEOGRAPHICAL SOCIETY

THE *American Geographical Society of New York* announces the award of three gold medals for the year 1924 as follows: